

# MICHIGAN

2001 FISH ADVISORY



**IMPORTANT FACTS** TO KNOW IF YOU EAT MICHIGAN FISH.

# TABLE OF CONTENTS



*Great State  
Great Fishing*



*Health Benefits*



*Women & Children*



*Cooking &  
Cleaning Fish*



*Charts of  
Specific Advisories*

*Cover Illustration by:  
Glen Wolff Studio • Traverse City, MI*



1-800-648-6942

[www.mdch.state.mi.us/pha/fishadvi.htm](http://www.mdch.state.mi.us/pha/fishadvi.htm)







# GREAT STATE. GREAT FISHING.



**E**ach year, more than a million people in Michigan enjoy the great fishing in our great state. This booklet helps anglers and their families get the greatest health benefits of eating sport fish. It shows which fish are best for you and least contaminated to eat.

Special attention is paid to women of childbearing age and children under 15. Unborn children and young children are especially sensitive to chemicals that build up in fish over time. Michigan's advisory for sport fish is more strict than the regulations used by the federal government for fish sold in supermarkets.

Michigan began its fish advisory program in the 1970s. Since then, fish have become much less contaminated. PCB levels have gone down in Lake Michigan fish by 90 percent since 1975. That was the year when Michigan became the first state to ban the use of these chemicals.

It's important to know about the chemicals that are in some fish. Long-lasting chemicals such as PCBs and DDT build up in the body over time. The human body tends to store these chemicals, so follow the advisory to avoid fish that contain higher levels. The human body is better at getting rid of mercury. Space out or cut down on meals of sport fish that are under an advisory for mercury to prevent possible health effects.



Much of the concern about chemicals in fish focuses on children. A study that began in 1980 showed minor learning problems in children of fish-eating mothers. That's why this booklet contains special advice for women of childbearing age and children under 15. That section begins on page 6.

Another important thing to remember about eating fish is that it needs to be properly trimmed and cooked. This cuts down the concentration of chemicals like PCB even more. PCB is stored in fat. Always trim fatty areas before cooking. Cook fish in ways that let the fat drip away, such as broiling, grilling, roasting or steaming fish. If you do that, more than 50 percent of the PCB in fish can be taken out. Mercury cannot be removed, so follow the mercury advisory closely.

Fish are nutritious and good to eat. They provide a diet high in protein and low in saturated fats. Many doctors say that eating a half-pound of fish each week helps prevent heart disease. Scientific studies show that, except for the especially sensitive groups of women and children, the benefits of eating fish may be greater than the risks associated with chemicals in sport fish.

Enjoy fishing in Michigan, and use the advice in this booklet to enjoy your catch in good health.





# HEALTH BENEFITS

*Fun to catch.  
Good to eat.  
Good for you.*

Eating Michigan sport fish is a healthy choice. There is an abundance of evidence in the scientific literature to document the health benefits of fish consumption. The Michigan Environmental Science Board says that the benefits associated with fish consumption by adults may outweigh the risks associated with chemical contaminants in Great Lakes fish. You can get the benefits of eating fish by wisely choosing safer types of fish, safer places to catch fish, safer ways to prepare fish, and moderation in how often you eat fish and how much you eat.

The Michigan Department of Community Health advises extra caution about eating fish for women of childbearing age and children under 15. By following the Michigan Fish Advisory, you can gain the health benefits of eating fish while making sure that you are not eating unsafe fish.

## *Health benefits of eating fish:*



Fish are a highly nutritious food. They are a good source of protein and are low in saturated fat. Fish contain similar nutrients as meat but without the saturated fat. In fact, fish have a healthy balance of mono, polyunsaturated and saturated oils. Many fish, including pike, perch, walleye, bass and sunfish are actually very low in fat.



Lake trout, whitefish, and to an extent, salmon contain generous amounts of a unique and beneficial oil called omega-3 polyunsaturated fatty acids. Omega-3 fatty acids lower triglyceride and cholesterol in the blood.



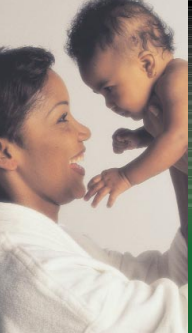
Fish contain many valuable vitamins and minerals and are leaner than most animal sources of protein. Eaten regularly, fish oils can prevent hardening of the arteries and therefore heart disease. As a matter of fact, the American Heart Association recommends eating two to three fish meals a week. In many people fish oils may also lessen arthritic pain.



From a nutritional standpoint, fish are categorized as high fat or low fat. High-fat fish such as salmon have 11 grams of fat per 3½-ounce cooked serving. Lower-fat fish include bluegill, perch and pike and have 1-2 grams of fat for a 3½-ounce cooked serving.



Some studies have also shown that eating fish regularly can reduce mildly elevated blood pressure, enhance the therapeutic action of antihypertensive drugs, and benefit both smokers and nonsmokers suffering from certain lung diseases.



# WHAT WOMEN OF CHILDBEARING AGE SHOULD KNOW ABOUT EATING FISH

## *General Fish Consumption Advice*

**T**he Michigan Department of Community Health advises extra caution about eating Michigan fish for women of childbearing age and children under 15.

Certain kinds and sizes of fish from the Great Lakes and from some of Michigan's lakes and streams contain levels of toxic chemicals that may be harmful if those fish are eaten too often.

The amounts of chemicals found in Michigan fish are not known to cause immediate sickness. But chemicals can collect in the body over time. It may take months or years of regularly eating contaminated fish to build up amounts that are a health concern. Chemicals may eventually affect your health or that of your children. Mothers who eat highly contaminated fish before birth may have children who are slower to develop and learn. A pregnant woman may pass these chemicals to her unborn child and to the new baby through breast milk.

## *What Can I Do to Reduce My Health Risks from Chemicals in Fish?*

- Choose smaller fish. Generally, panfish and fish just over the legal size will have fewer chemicals.
- Choose lean fish. Panfish, brook trout and brown trout that live in streams and rivers tend to be low in fat. Small walleye, northern pike and bass, especially those that are just legal size, also tend to have fewer chemicals. Carp and catfish are higher in fat and usually have more chemicals.
- Choose fish that don't eat other fish. Large predator fish, especially large walleye, northern pike, muskie, bass and lake trout tend to have more chemicals.



# Healthy Kids

Health Care Insurance



For pregnant women.  
For babies.  
For kids up to 19.  
**For Free**

Call toll-free

**1-888-988-6300**

to get more information that will help you find out if you qualify.

Michigan Department  
of Community Health



John Engler, Governor  
James K. Haveman, Jr., Director



**F**or a guide to how often you may eat sport fish and still avoid potential health risks from chemicals, see the charts of specific advisories for the Great Lakes watersheds. The charts start on page 14. They show specific locations, kinds, and sizes of fish, and how often you may eat them.

Trim and cook fish properly to reduce risk. This can remove more than 50 percent of the remaining contaminants in fish. See the separate section on trimming and cooking on page 10.

### *Advisory on Mercury in Inland Lakes*

**T**he Michigan Department of Community Health has issued a special advisory for all inland lakes in Michigan due to mercury. This is a widespread problem throughout the north central United States and Canada.

**No one should eat more than one meal a week of these kinds and sizes of fish from any of Michigan's inland lakes:**

- Rock bass, perch, or crappie over 9 inches in length
- Any size largemouth bass, smallmouth bass, walleye, northern pike, or muskie



Project F.I.S.H. is a Michigan youth sportfishing education program. It is designed to involve children in long-term, mentor-based, community-supported, sportfishing and aquatic resource education.

Call 517-432-2700 for more information.

Or visit:  
[www.projectfish.org](http://www.projectfish.org)



**Women of childbearing age and children under age 15 should not eat more than one meal per month of these fish.**

More than 200 inland bodies of water have been sampled. For specific advice about these lakes, see the summary of mercury in fish from inland lakes on page 15.

### *Commercial Fish*

**T**he fish you buy from your supermarket can also contain toxic chemicals. There are laws to limit them, but extra caution will help protect unborn and young children.

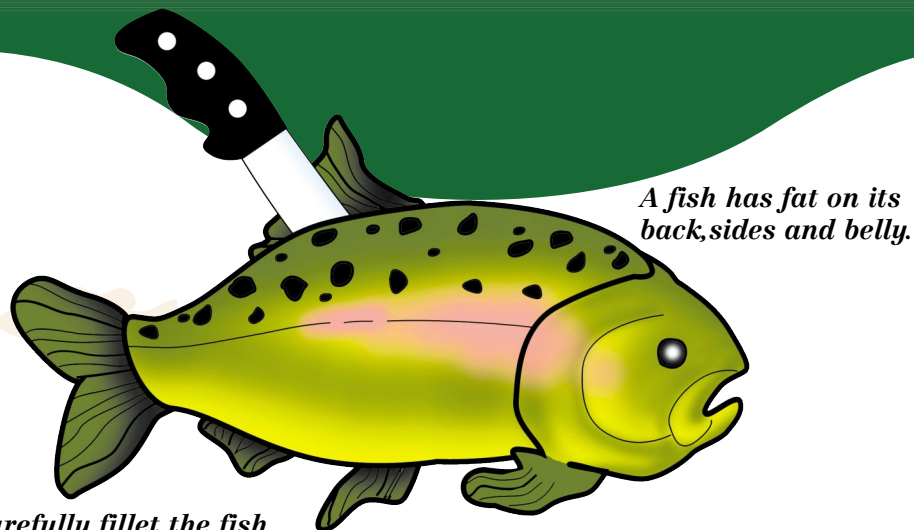
**Women of child bearing age, particularly those who are pregnant or nursing, and children under 15 should not eat these fish due to mercury levels:**

- Swordfish
- Shark
- King Mackerel
- Tilefish



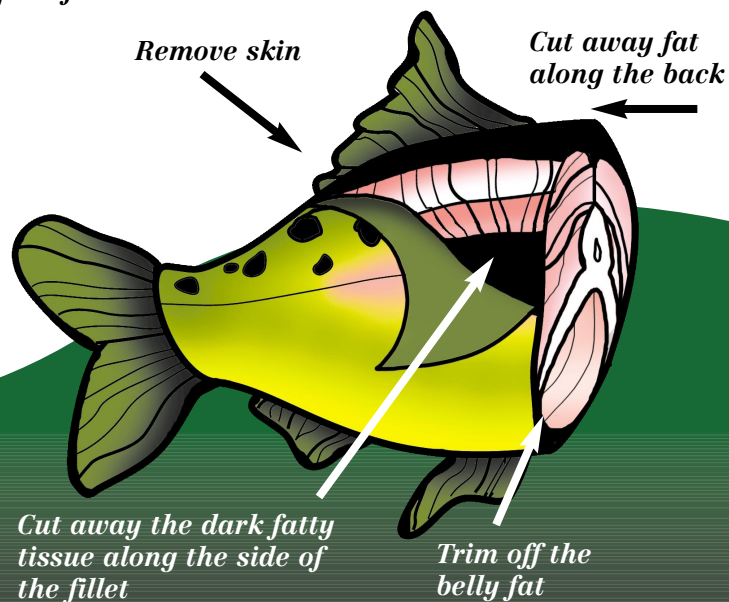
# COOKING AND CLEANING FISH

*Important reminders.*



*A fish has fat on its back, sides and belly.*

*Carefully fillet the fish with a long sharp knife.*



*Cut away the dark fatty tissue along the side of the fillet*

*Trim off the belly fat*

## *Trim & Cook Fish Properly To Reduce Risk*

Fish are nutritious and good to eat. When properly prepared, fish provide a diet high in protein and low in saturated fats. Many doctors suggest, based on scientific studies, that eating 2-3 fish meals a week is helpful in preventing heart disease.

Proper preparation reduces the concentration of organic chemicals like PCB even further. By trimming fatty areas before cooking and by cooking fish in ways that allow fat to drip away, more than 50 percent of the contaminants in fish can be eliminated. Methyl mercury is stored in fish flesh. Special trimming and cooking methods do not remove it.

### *DO*

Trim fatty areas before cooking (see drawing). The belly, the top of the back, and the dark meat along the skin side of the fillet are often fatty.

Remove or puncture skin before cooking. This allows fats to drain off and helps remove or reduce fat under the skin.

Cook so fat drips away. Bake, broil or grill on a rack, or poach and do not use the liquid.

Deep-fry trimmed fillets in vegetable oil. After frying, drain and throw away the oil.

### *DON'T*

Pan-fry in butter or animal fat, and don't make fish soups or chowders. These methods hold in juices that contain fat from the fish.



If you really want to  
**quit smoking,**  
this really ought to help:



Call **1-800-537-5666**  
to get your free Quit Kit.

Nicotine patches or gum about double your chances for success.

Talk with your doctor about the patch or gum.

Get the support of your non-smoking friends and relatives.

We want you to be successful in your efforts to quit smoking.  
The more times you try to quit, the better your chances. Call for the free Quit Kit.  
It has lots of tips to help you get in the non-smoking habit.

**Michigan Department of Community Health**

# CHARTS OF SPECIFIC ADVISORIES

*Great fishing and great fish.*





# Charts of Specific Advisories

## *How to Use the Charts Four Easy Steps*

### Step One:

In the first column, find the body of water in which you are fishing. The charts are divided into separate listings for each Great Lakes watershed. Within these sections, the Great Lake is listed first, then bays on the lake that have additional advisories, followed by an alphabetical listing of rivers that flow into the lake and inland lakes, reservoirs or impoundments in the watershed.

### Step Two:

In the second column, find the kind of fish that you have caught.

### Step Three:

Read across the top of the chart to the appropriate category and find the size range of the fish you have caught. The General Population category is for men, boys over the age of 15 and women who are beyond childbearing years. The Women & Children category is for women of childbearing age and children under 15.

### Step Four:

Follow the size column down to the line for the species that you found in the previous steps. The symbol on the chart represents the consumption advice, according to the following key:



Unlimited consumption. Eat as much of these fish as you wish.  
One meal per week.  
One meal per month.  
Six meals per year.  
Do not eat these fish.



## *General Advice*

**If you are fishing in a river or stream that is not listed, keep in mind the following facts:**

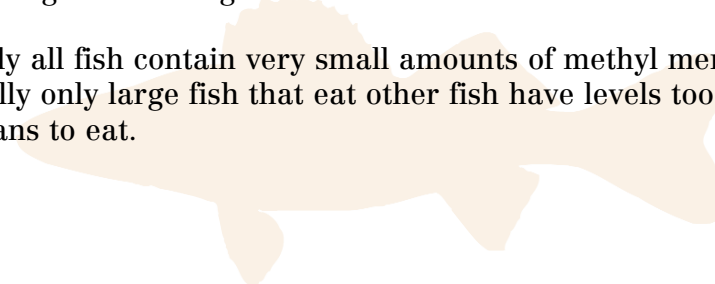
- Larger and older fish tend to collect more contaminants.
- Fish that eat other fish, such as muskie, northern pike, walleye and bass, tend to collect chemicals such as mercury.
- Fatty fish, such as carp, catfish, lake trout and large salmon, tend to collect PCBs and similar chemicals.
- For salmon and trout on their spawning run into streams, follow the advice for the Great Lake from which they are migrating.

## *Mercury in fish*

Mercury is found in nature. It is also released by burning wastes and coal, and improper disposal of mercury containing products such as thermometers, batteries, and older thermostats. Small amounts can dissolve in water. Bacteria can change it into a more toxic form called methyl mercury.

Fish pick it up as they feed and absorb it from water as it passes over their gills. Larger predator fish accumulate more as they eat other fish. Methyl mercury is stored in fish flesh. Special trimming and cooking methods do not remove it.

Nearly all fish contain very small amounts of methyl mercury. Usually only large fish that eat other fish have levels too high for humans to eat.





## *Mercury in Michigan Sport Fish*

In addition to Great Lakes advisories, these charts represent results of testing for mercury in fish from about 200 inland lakes in Michigan. Only a few kinds of fish were tested in each lake. The charts show only the mercury in the fish that were tested. Other fish in the same lake will probably have similar levels. Large fish such as bass and walleye may have higher levels. Panfish such as bluegill and sunfish may have lower levels. You can also get a copy of the full tables that show species and sizes tested in each lake. Contact the Michigan Department of Community Health Environmental Epidemiology Division at 1-800-648-6942.

## *General Inland Lake Mercury Advisory*

For lakes not in these lists, follow this general advisory. Even in the lakes tested that did not have fish consumption advisories due to mercury it is wise to limit meals of large fish.

- No one should eat more than one meal a week of rock bass, yellow perch, or crappie over nine inches in length and bass, walleye, northern pike or muskellunge of any size.
- Women of childbearing age and children under 15 should not eat more than one meal per month of these fish.

## *Spacing Meals of Sport Fish*



It's important to leave enough space between meals of sport fish so you reduce the risks of chemicals in fish.

- If you eat fish that contain mercury, wait until the consumption period is over before having another meal of fish in the same category. For example, if you eat a fish that has a consumption advisory of one meal a month because of mercury contamination, don't eat any more fish that contain mercury for another month.
- It's different with fish that contain other chemicals such as PCBs. You can eat more meals of these fish over a shorter period of time as long as you don't go over the total number of meals you could have in a year. If most of the fish you eat are in the one-meal-a-week category, you could have a total of 52 meals a year. If most of the fish you eat are in the one-meal-a-month group, you could have 12 meals a year. Eating one meal of fish from the one-meal-a-month group is the same as eating four meals of fish from the one-meal-a-week group. If you eat most of your meals of sport fish in four or five months over the summer fishing season, that's okay — but don't eat more than the total number of meals you may have in a year.

## *Need More Information?*

For further information or for the most up-to-date advice, contact the MDCH Environmental Epidemiology Division at 1-800-648-6942. This advisory was updated in January, 2001. Determining safe levels of fish consumption is an ongoing process of scientific analysis. Updates may be issued as the Michigan Department of Community Health gets new information.



-  Unlimited consumption.
  One meal per week.
  One meal per month.
  Six meals per year.
  Do not eat these fish.

			General Population									Women & Children								
			Length (inches)									Length (inches)								
Water body	Species	Contaminant(s)	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +
Lake Erie Watershed All other locations refer to general advice on page 15																				
Lake Erie #	Carp, Catfish	PCBs	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
	Chinook Salmon	PCBs			▲	▲	▲	▲	▲	▲	▲			●	●	●	●	●	●	●
	Coho Salmon	PCBs			▲	▲	▲	▲	▲	▲	▲			●	●	●	●	●	●	●
	Freshwater Drum	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▼	▼	▼	▼	▼	▼	▼	▼	▼
	Lake Trout	PCBs			▲	▲	▲	▲	▲	▲	▲			■	■	■	■	■	■	■
	Rainbow Trout (Including Steelhead)	PCBs			▲	▲	▲	▲	▲	▲	▲			●	●	●	●	●	●	●
	Smallmouth Bass	PCBs					▲	▲	▲	▲					●	●	●	●		
	Walleye	PCBs				▲	▲	▲	▲	▲	▲				▼	▼	▼	●	●	●
	White Bass	PCBs	▲	▲	▲	▲	▲	▲					●	●	●	●	●	●		
	Whitefish	PCBs, Dioxins	▼	▼	▼	▼	▼	▼	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
	White Perch	PCBs	▲	▲	▲	▲							●	●	●	●				
	Yellow Perch	PCBs	▲	▲	▲	▲	▲						▼	▼	▼	▼				
Barton Pond* (Huron R.)	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▼	▼	▼	▼	▼	▼	▼	▼	▼
Belleville Lake* (Huron R.)	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	■	■
	Gizzard Shad	PCBs	▲	▲	▲	▲	▲	▲				●	●	●	●	●	●			
	Walleye	PCBs					▲	▲	▲	▲	▲					▼	●	●	●	●
	White Suckers	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		●	●	●	●	●	●	●	
Black Creek (Lenawee Co.)	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●
Cass Lake* (Oakland Co.)	Smallmouth Bass	Mercury, PCBs					▼	▼	▼	▼						●	●	●	●	
	Walleye	Mercury, PCBs					▼	▼	▼	▼	▼					●	●	●	●	●
Clear Spring Lake* (Macomb Co.)	Largemouth Bass	Mercury, PCBs					▲	▼	▼	▼						▼	●	●	●	
Clinton River (Below Yates Dam)	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	■	■	■	■
	Rock Bass	PCBs	▲	▲	▲	▲	▲					▼	▼	▼	▼	▼				
	White Sucker	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▼	▼	▼	▼	▼	▼	▼	▼	▼



# Also applies to tributaries into which migratory species enter.






\* For species not listed, see general inland lake mercury advisory on page 16.






































































































































































































































































































































































**An empty box in the chart means one of two things:**

- On the small end of the size scale, fish in this size range are not of legal size.
- On the large end of the size scale, fish of this type generally do not grow to this size.






-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.

	Unlimited consumption.		One meal per week.
	One meal per month.		Six meals per year.
			Do not eat these fish.

Water body			Species			Contaminant(s)			General Population									Women & Children														
									Length (inches)									Length (inches)														
									6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +						
Lake Erie Watershed All other locations refer to general advice on page 15																																
Detroit River			Carp	PCBs, Dioxin																												
			Freshwater Drum	Mercury, PCBs																												
			Northern Pike	PCBs																												
			Redhorse Sucker	PCBs																												
			Walleye	Mercury, PCBs																												
			Yellow Perch	PCBs																												
Ford Lake* (Washtenaw Co.)			Black Crappie	PCBs																												
			Carp	PCBs																												
			Channel Catfish	PCBs																												
			Walleye	PCBs																												
Kent Lake* (Oakland Co.)			Black Crappie	Mercury, PCBs																												
			Carp	PCBs																												
			Largemouth and Smallmouth Bass	PCBs																												
			Walleye	Mercury, PCBs																												
Lake Orion* (Oakland Co.)			Largemouth Bass	Mercury, PCBs																												
			Northern Pike	Mercury, PCBs																												
Lake St. Clair			Bluegill	PCBs																												
			Brown Bullhead	Mercury																												
			Carp	PCBs																												
			Carpsucker	Mercury																												






\* For species not listed, see general inland lake mercury advisory on page 16.

-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.

			General Population									Women & Children								
			Length (inches)									Length (inches)								
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +
Water body	Species	Contaminant(s)	All other locations refer to general advice on page 15																	
Lake St. Clair (cont.)	Sturgeon	PCBs																		
	Walleye	Mercury, PCBs																		
	White Bass	Mercury, PCBs																		
	White Perch	Mercury																		
Maceday Lake* (Oakland Co.)	Northern Pike	Mercury, PCBs																		
Osmun Lake* (Oakland Co.)	Carp	PCBs																		
	Largemouth Bass	PCBs, Mercury																		
Ottawa River	All species	PCBs																		
Pine River (St. Clair Co.)	Carp	PCBs																		
Pontiac Lake* (Oakland Co.)	Channel Catfish	Mercury, PCBs																		
River Raisin (Above Monroe Dam)	Carp	PCBs																		
River Raisin, (Below Monroe Dam) and Plum Creek	Black Buffalo	PCBs																		
	Carp	PCBs																		
	Channel Catfish	PCBs																		
	Freshwater Drum	PCBs																		
	Smallmouth Bass	PCBs																		
	White Bass	PCBs																		
River Raisin, South Branch	Carp	PCBs																		
	Northern Pike	PCBs																		
	Redhorse Sucker	PCBs																		
Rouge River (Main or Upper Branch above M153-/Ford Road)	White Sucker	PCBs																		
Rouge River (Phoenix Reservoir)	Bluegill	PCBs																		
	Carp	PCBs																		

\* For species not listed, see general inland lake mercury advisory on page 16.



-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.
































































































































































































































































































































	Unlimited consumption.		One meal per week.
	One meal per month.		Six meals per year.
			Do not eat these fish.

Water body	Species	Contaminant(s)	General Population									Women & Children									
			Length (inches)									Length (inches)									
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	
Lake Erie Watershed All other locations refer to general advice on page 15																					
Rouge River <small>(Middle Branch below Phoenix Lake and Main Branch below M-153/Ford Road)</small>	Carp, Catfish, Suckers	PCBs	◆	◆	◆	◆	◆	◆	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	
	Largemouth and Smallmouth Bass	PCBs					◆	◆	◆	◆					◆	◆	◆	◆			
	Northern Pike	PCBs							◆	◆	◆						◆	◆	◆		
	All other species	PCBs	▼	▼	▼	▼	▼	▼	▼	▼	▼		◆	◆	◆	◆	◆	◆	◆	◆	
Rouge River Lower Branch	Carp, Suckers	PCBs	◆	◆	◆	◆	◆	◆	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	
Terry Lake* <small>(Oakland Co.)</small>	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	●	●	●	●
St. Clair River	Carp	Mercury, PCBs	▲	▲	▲	▲	▲	▲	▼	▼	◆		▲	▲	▲	▼	●	●	■	◆	◆
	Freshwater Drum	Mercury, PCBs	▲	▲	▲	▲	▼	▼	▼	▼	▼		▲	▲	▲	▲	●	●	●	●	●
	Gizzard Shad	Mercury, PCBs	▲	▲	▼	▼	▼	▼					▼	●	◆	◆	◆				
	Walleye	PCBs				▲	▲	▲	▲	▲	▲					●	●	●	●	●	●
Stony Creek Impoundment* <small>(Macomb Co.)</small>	Northern Pike	Mercury, PCBs							▼	▼	▼							●	●	●	
Unnamed Lake* <small>(Washtenaw Co., T3S, R7E, S26)</small>	Bullhead	PCBs	▲	▲	▲	▲	▲						▼	▼	▼	▼					
	Largemouth Bass	Mercury, PCBs					▼	▼	▼	▼						●	●	●	●		
Walled Lake* <small>(Oakland Co.)</small>	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	▼	●	●	●
	Northern Pike	Mercury, PCBs								▼	▼	▼							●	●	●
Whitmore Lake* <small>(Livingston Co.)</small>	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		▲	▲	▲	▲	▲	▲	▼	▼	▼
All Inland lakes, reservoirs, and impoundments <small>(mercury advisory)</small>	Crappie	Mercury	▲	▼	▼	▼	▼	▼					▲	●	●	●	●				
	Largemouth and Smallmouth Bass	Mercury					▼	▼	▼	▼						●	●	●	●		
	Muskellunge	Mercury										▼									●
	Northern Pike	Mercury								▼	▼	▼						●	●	●	
	Rock Bass	Mercury	▲	▼	▼	▼	▼							▲	●	●	●	●			
	Walleye	Mercury					▼	▼	▼	▼	▼					●	●	●	●	●	
	Yellow Perch	Mercury	▲	▼	▼	▼	▼							▲	●	●	●	●			

\* For species not listed, see general inland lake mercury advisory on page 16.






-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.



			 Unlimited consumption.		 One meal per week.																
			 One meal per month.		 Six meals per year.																
					 Do not eat these fish.																
Water body	Species	Contaminant(s)	General Population									Women & Children									
			Length (inches)									Length (inches)									
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	
Lake Huron Watershed All other locations refer to general advice on page 15																					
Lake Huron #	Brown Trout	PCBs																			
	Burbot	PCBs																			
	Chinook Salmon	PCBs																			
	Coho Salmon	PCBs																			
	Lake Trout	PCBs, Chlordane, Dioxins																			
	Rainbow Trout (Including Steelhead)	PCBs, Dioxins																			
	Whitefish	PCBs, Dioxins																			
Saginaw Bay # (Also follow Lake Huron advisories above)	Carp	PCBs, Dioxins																			
	Channel Catfish	PCBs, Dioxins																			
	Northern Pike	PCBs																			
	Walleye	Mercury, PCBs																			
	White Bass	PCBs																			
	White Perch	PCBs																			
	White Sucker	PCBs																			
	Yellow Perch	PCBs																			
Thunder Bay # (Also follow Lake Huron advisories above)	Carp	PCBs, Dioxins																			
	Walleye	PCBs																			
Au Sable River (At Oscoda)	Carp	PCBs																			
	Walleye	Mercury, PCBs																			
Au Sable River (Middle Branch)	Walleye	Mercury																			
Bad River	Channel Catfish	PCBs																			
	Northern Pike	PCBs																			
Black River (Sanilac Co.)	Carp	PCBs																			
Caro Impoundment* (Cass River)	Carp	PCBs																			






# Also applies to tributaries into which migratory species enter.





























































































































































































































































































\* For species not listed, see general inland lake mercury advisory on page 16.

-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.

			<div>General Population</div> <div>Length (inches)</div> <div>6-88-1010-1212-1414-1818-2222-2626-3030 +</div>									<div>Women &amp; Children</div> <div>Length (inches)</div> <div>6-88-1010-1212-1414-1818-2222-2626-3030 +</div>											
Water body	Species	Contaminant(s)	All other locations refer to general advice on page																				
Cass River (Below Bridgeport)	Carp	Dioxins	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼		
	Channel Catfish	PCBs, Mercury Dioxins				◆	◆	◆	◆	◆	◆					◆	◆	◆	◆	◆	◆		
	Northern Pike	PCBs								▲	▲	▲					▼		●	●	●		
Cass River (Above Bridgeport)	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		
	Northern Pike	Mercury								▲	▼	▼					▲		●	●	●		
Cheboyganing Creek	Carp	PCBs	▲	▲	▲	▲	▲	▼	◆	◆	◆		▼	▼	▼	●	●	■	◆	◆	◆		
	Northern Pike	PCBs								▲	▲	▲							●	●	●		
Flint River (Below Flint)	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	◆		●	●	●	●	●	●	●	◆		
	Smallmouth Bass	PCBs					▲	▲	▲	▲						▼	▼	▼	▼				
Holloway Reservoir* (Genessee Co.)	Channel Catfish	PCBs				▲	▲	▲	▲	▲	▲	▲				●	●	●	●	●	●		
Kawkawlin River	Carp	PCBs	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆		
	Northern Pike	PCBs								▲	▲	▲							●	●	●		
Pine River* (Alma Impoundment)	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▼	▼	▼	▼	▼	▼	▼	●	●		
Pine River* (Downstream of Alma dam)	All Species	PBBs, DDT	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆		
Rifle River	Redhorse Sucker	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	▼	▼	▼			
	Rock Bass	PCBs	▲	▲	▲	▲	▲						▲	▼	▼	▼	▼						
Saginaw River (Entire Length)	Carp, Catfish	PCBs, Dioxins	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆		
	White Bass	PCBs	▼	▼	▼	▼	▼	▼					■	■	■	■	■	■					
	All other species	PCBs, Dioxins	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		
Sanford Lake* (Midland Co.)	Black Crappie		▲	▲	▲	▲	▲	▲					▲	▲	▲	▲	▲						
	Rock Bass		▲	▲	▲	▲	▲						▲	▲	▲	▲							
	Channel Catfish	Mercury, PCBs				▲	▲	▲	▲		▼	▼				▼	▼	▼	▼	●	●		
St. Mary’s River	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●		
	Northern Pike	PCBs								▲	▲	▲						▲	▼	▼	▼		
	Walleye	Mercury, PCBs					▲	▲	▼	▼	▼					▼	▼	●	●	●			


-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.






























































	Unlimited consumption.		One meal per week.
	One meal per month.		Six meals per year.
			Do not eat these fish.




			General Population									Women & Children										
			Length (inches)									Length (inches)										
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +		6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	
Lake Huron Watershed All other locations refer to general advice on page 15																						
Sebawaing River	Carp	PCBs																				
	Northern Pike	PCBs																				
Shiawassee River (Below Owosso)	Carp	PCBs																				
	Rock Bass	PCBs																				
	Smallmouth Bass	PCBs																				
Shiawassee River (Byron to Owosso)	Carp	PCBs																				
	Northern Pike	PCBs																				
	Smallmouth Bass	PCBs																				
Shiawassee River S. Br. (M-59 to Byron)	All species	PCBs																				
Tawas River	Northern Pike	PCBs																				
Thompson Lake* (Livingston Co.)	Black Crappie	Mercury, PCBs																				
	Carp	PCBs																				
Thread Creek	Carp	PCBs																				
Tittabawassee River (Below Midland)	Carp, Catfish	PCBs, Dioxins																				
	Smallmouth Bass	PCBs, Dioxins																				
	White Bass	PCBs, Dioxins																				
	All other species	PCBs, Dioxins																				
Tobico Wetland* (Bay Co.)	Carp	PCBs																				
	Northern Pike	PCBs																				
Van Etten Lake* (Iosco Co.)	Carp	PCBs																				
	Channel Catfish	PCBs																				
	Walleye	Mercury, PCBs																				






\* For species not listed, see general inland lake mercury advisory on page 16.


























































































































































































































































































-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.

	Unlimited consumption.		One meal per week.	General Population								Women & Children										
	One meal per month.		Six meals per year.	Length (inches)								Length (inches)										
			Do not eat these fish.	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +		6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +
Lake Huron Watershed All other locations refer to general advice on page 15																						
<b>*All Inland lakes, reservoirs, and impoundments</b> (mercury advisory)	Crappie	Mercury																				
	Largemouth and Smallmouth Bass	Mercury																				
	Muskellunge	Mercury																				
	Northern Pike	Mercury																				
	Rock Bass	Mercury																				
	Walleye	Mercury																				
	Yellow Perch	Mercury																				



















































































































































































































































































































































-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.

	Unlimited consumption.		One meal per week.
	One meal per month.		Six meals per year.
			Do not eat these fish.

Water body	Species	Contaminant(s)	General Population										Women & Children									
			Length (inches)										Length (inches)									
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +		
Lake Michigan Watershed All other locations refer to general advice on page 15																						
Lake Michigan North of Frankfort #	Brown Trout	PCBs																				
	Carp, Catfish	PCBs																				
	Chinook Salmon	PCBs																				
	Coho Salmon	PCBs																				
	Lake Trout	PCBs, Chlordane																				
	Rainbow Trout (Including Steelhead)	PCBs																				
	Smelt	PCBs																				
	Sturgeon	PCBs																				
	Walleye	Mercury, PCBs																				
	Whitefish	PCBs, Dioxin																				
	Yellow Perch	PCBs																				
Lake Michigan South of Frankfort #	Brown Trout	PCBs																				
	Carp, Catfish	PCBs																				
	Chinook Salmon	PCBs																				
	Coho Salmon	PCBs																				
	Lake Trout	PCBs, Chlordane																				
	Rainbow Trout (Including Steelhead)	PCBs																				
	Smelt	PCBs																				
	Sturgeon	PCBs, Chlordane DDT, Dioxin																				
	Walleye	Mercury, PCBs																				
	Whitefish	PCBs, Chlordane Dioxin																				
	Yellow Perch	PCBs																				



# Also applies to tributaries into which migratory species enter






-  Unlimited consumption.
  One meal per week.
  One meal per month.
  Six meals per year.
  Do not eat these fish.

			 Unlimited consumption.		 One meal per week.																		
			 One meal per month.		 Six meals per year.																		
			 Do not eat these fish.																				
			General Population										Women & Children										
			Length (inches)										Length (inches)										
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +		6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +		
Water body	Species	Contaminant(s)	All other locations refer to general advice on page 15																				
Green Bay # <small>(S. of Cedar River. Applies to Michigan waters including Menominee and Cedar rivers below first dam. See also Lake Michigan-North of Frankfort)</small>	Brown Trout	PCBs																					
	Burbot	PCBs																					
	Carp	PCBs																					
	Channel Catfish	PCBs																					
	Chinook Salmon	PCBs																					
	Lake Trout	PCBs																					
	Longnose Sucker	PCBs																					
	Northern Pike	PCBs																					
	Rainbow Trout (Including Steelhead)	PCBs																					
	Smallmouth Bass	Mercury, PCBs																					
	Splake	PCBs																					
	Sturgeon	PCBs																					
	Walleye	Mercury, PCBs																					
	White Bass	PCBs																					
	Whitefish	PCBs, Dioxins																					
	White Perch	PCBs																					
White Sucker	PCBs																						
Yellow Perch	PCBs																						
Little Bay de Noc # <small>(See also Lake Michigan North of Frankfort)</small>	Burbot	PCBs																					
	Longnose Sucker	PCBs																					
	Northern Pike	PCBs																					
	Smallmouth Bass	Mercury, PCBs																					
	White Sucker	PCBs																					
Barton Lake* <small>(Kalamazoo Co.)</small>	Carp	PCBs																					
Battle Creek River	Carp	PCBs																					

\* For species not listed, see general inland lake mercury advisory on page 16




































































































































































































































































































-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.









































































































































































































































































	Unlimited consumption.		One meal per week.
	One meal per month.		Six meals per year.
			Do not eat these fish.

Water body		Species		Contaminant(s)		General Population										Women & Children														
						Length (inches)										Length (inches)														
						6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +		6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +						
Lake Michigan Watershed																					All other locations refer to general advice on page 15									
Battle Creek River		Smallmouth Bass	PCBs						▲	▲	▲	▲							▼	▼	▼	▼								
Bear Lake* (Muskegon Co.)		Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▼	◆		●	●	●	●	●	●	●	◆	◆								
		Largemouth Bass	Mercury, PCBs						▼	▼	▼	▼						●	●	●	●									
		Northern Pike	PCBs								▲	▲	▲						▼	●	●									
		Walleye	Mercury, PCBs					▲	▼	▼	▼	▼					●	●	■	■	■									
Black Creek (Muskegon Co.)		Carp, White Sucker	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		●	●	●	●	●	●	●	●	●								
Black River (Below S. Br. and S. Br. below Bangor)		Carp	PCBs, Chlordane	◆	◆	◆	◆	◆	◆	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆								
		Northern Pike	PCBs								▲	▲	▲						●	●	●									
		White Sucker	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	▼	▼	▼								
Boyne River		Brown Trout	PCBs		▲	▲	▲	▲	▲	▲	▲	▲			▼	●	●	●	●	●	●	●								
Constantine Impoundment* (St. Joseph R.; St. Joseph Co.)		Channel Catfish	PCBs				▲	▲	▲	▲	▲	▲					▼	▼	▼	▼	▼	▼								
Crystal Lake* (Benzie Co.)		Brown Trout	PCBs			▲	▲	▲	▲	▲	▲	▲				▼	▼	▼	●	●	●	●								
		Lake Trout	PCBs			▲	▲	▲	▲	▲	▲	▲	▲				●	●	●	●	●	●								
		White Sucker	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	▼	▼	▼								
Dowagiac River		Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	▼	▼	▼	▼								
Elk Lake* (Antrim Co.)		Lake Trout	Mercury, PCBs			▲	▲	▲	▲	▲	▼	▼				▼	▼	▼	▼	●	●	●								
Fawn River		Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	▼	●	●	●								
		White Sucker	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	▼	▼	▼								
Flat River		Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		●	●	●	●	●	●	●	●	●								
		Rock Bass	PCBs	▲	▲	▲	▲	▲							▼	▼	▼	▼												
Fenner Lake* (Allegan Co.)		Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	▼	●	●	●								
Galien River		Carp	PCBs, Chlordane	▲	▲	▲	▲	▲	▲	◆	◆	◆		▲	▲	▲	▼	●	●	◆	◆	◆								
Glen Lake* (Leelanau Co.)		Lake Trout	Mercury, PCBs, Chlordane			▲	▲	▲	▲	▼	▼	◆				▼	▼	▼	●	●	●	◆								




-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.

			 Unlimited consumption.	 One meal per week.																
			 One meal per month.	 Six meals per year.																
			 Do not eat these fish.																	
Water body	Species	Contaminant(s)	General Population									Women & Children								
			Length (inches)									Length (inches)								
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +
Lake Michigan Watershed All other locations refer to general advice on page 15																				
Grand River (Above Webber Dam)	Carp	PCBs																		
	Channel Catfish	PCBs																		
	Northern Pike	PCBs																		
	Redhorse Sucker	PCBs																		
	Walleye	PCBs																		
Grand River (Below Webber Dam)	Carp	PCBs																		
	Channel Catfish	PCBs																		
	Northern Pike	PCBs																		
	Redhorse Sucker	PCBs																		
	Walleye	PCBs																		
Greenwood Reservoir* (Escanaba River, Marquette Co.)	Northern Pike	Mercury																		
Gull Lake* (Kalamazoo Co.)	Northern Pike	Mercury, PCBs																		
Hess Lake* (Newago Co.)	Carp	PCBs																		
Higgins Lake* (Roscommon Co.)	Lake Trout	Mercury, PCBs, Chlordane																		
Houghton Lake*(Roscommon Co.)	Carp	PCBs																		
Kalamazoo River (Ceresco Impoundment, Calhoun Co.)	Carp	PCBs																		
Kalamazoo River (From Battle Creek to Morrow Pond Dam)	Carp	PCBs																		
Kalamazoo River (From Morrow Dam to Allegan Dam) and Portage Creek (Below Monarch Mill Pond, Kalamazoo Co.)	Carp	PCBs																		
	Catfish, Suckers	PCBs																		
	Largemouth Bass	PCBs																		
	Smallmouth Bass	PCBs																		
	All other species	PCBs																		

-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.

			 Unlimited consumption.		 One meal per week.															
			 One meal per month.		 Six meals per year.															
					 Do not eat these fish.															
			General Population									Women & Children								
			Length (inches)									Length (inches)								
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +
Water body	Species	Contaminant(s)	All other locations refer to general advice on page 15																	
Kalamazoo River (Below Allegan Dam)	Carp, Catfish	PCBs																		
	Largemouth and Smallmouth Bass	PCBs																		
	Northern Pike	PCBs																		
	All other species	PCBs																		
Lake Macatawa* (Ottawa Co.)	Carp	PCBs, Chlordane																		
	Walleye	PCBs																		
Manistee Lake* (Manistee Co.)	Black Crappie	Mercury, PCBs																		
	Bluegill	PCBs																		
	Largemouth and Smallmouth Bass	Mercury, PCBs																		
	Walleye	Mercury, PCBs																		
Manistique River (Below M-94/ Old U.S. 2)	Carp	PCBs																		
	Channel Catfish	PCBs																		
Manistique River (Upstream from dam at Manistique)	Northern Pike	Mercury																		
Menominee River (Below Quinnesec, Dickinson Co.)	Carp	Mercury, PCBs																		
	Redhorse Sucker	Mercury, PCBs																		
	Sturgeon	Mercury																		
	Walleye	Mercury, PCBs																		
	White Sucker	PCBs																		
Michigamme River System* (Including Lake Michigamme, Michigamme Reservoir, Peavy Pond, and Paint River Pond)	Burbot	Mercury																		
	Northern Pike	Mercury																		
	Walleye	Mercury																		
	White Sucker	Mercury																		



\* For species not listed, see general inland lake mercury advisory on page 16.

-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.

			<div>General Population</div> <div>Length (inches)</div> <div>6-88-1010-1212-1414-1818-2222-2626-3030 +</div>									<div>Women &amp; Children</div> <div>Length (inches)</div> <div>6-88-1010-1212-1414-1818-2222-2626-3030 +</div>								
Water body	Species	Contaminant(s)	All other locations refer to general advice on page 15																	
Mona Lake* <small>(Muskegon Co.)</small>	Carp	PCBs	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
	Smallmouth Bass	Mercury, PCBs					▼	▼	▼	▼						●	●	●	●	
Morrison Lake* <small>(Ionia Co.)</small>	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲			▲	▲	▲	▲	▲	▼	●
	Largemouth Bass						▲	▲	▲	▲					▲	▲	▲	▲		
Muskegon Lake* <small>(Muskegon Co.)</small>	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▼	◆		●	●	●	●	●	●	◆	◆
	Largemouth Bass	Mercury, PCBs					▼	▼	▼	▼						●	●	●	●	
	Northern Pike	PCBs							▲	▲	▲							▼	●	●
	Walleye	Mercury, PCBs					▲	▼	▼	▼	▼					●	●	■	■	■
Muskegon River <small>(Below Croton Dam)</small>	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▼	◆		●	●	●	●	●	●	◆	◆
	Redhorse Sucker	Mercury, PCBs	▲	▲	▲	▲	▲	▼	▼	▼			▲	▲	▲	▲	●	●	●	
	Walleye	PCBs					▲	▲	▲	▲	▲					▼	●	●	■	■
Net River <small>(Iron Co.)</small>	Northern Pike	Mercury							▼	▼	▼							●	●	●
	Walleye	Mercury					▼	▼	▼	▼	▼					●	●	●	●	●
Pere Marquette Lake* <small>(Mason Co.)</small>	Northern Pike	Mercury, PCBs							▼	▼	▼							●	●	●
	Redhorse Sucker	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		●	●	●	●	●	●	●	
Pere Marquette River	Brown Trout	Mercury, PCBs		▲	▲	▲	▼	▼	▼	▼	▼			▼	▼	▼	●	●	●	●
	Redhorse Sucker	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		●	●	●	●	●	●	●	
Portage Lake* <small>(Manistee Co.)</small>	Largemouth and Smallmouth Bass	Mercury, PCBs					▼	▼	▼	▼						●	●	●	●	
	Northern Pike	Mercury, PCBs							▼	▼	▼							●	●	●
Randall Lake Chain* <small>(Branch Co.)</small>	Northern Pike	Mercury, PCBs							▼	▼	▼							●	●	●
Red Cedar River	Carp	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	●	●	●
	Northern Pike	PCBs							▲	▲	▲							▲	▼	▼
Reed's Lake* <small>(Kent Co.)</small>	Largemouth Bass	PCBs					▲	▲	▲	▲						▼	▼	▼	▼	
	Northern Pike	PCBs							▲	▲	▲							▼	▼	▼
	Walleye	PCBs					▲	▲	▲	▲	▲					▼	▼	▼	▼	▼


\* For species not listed, see general inland lake mercury advisory on page 16.





-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.






			<div>General Population</div>										<div>Women &amp; Children</div>									
			<div>Length (inches)</div>										<div>Length (inches)</div>									
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +											
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +		
Water body	Species	Contaminant(s)	All other locations refer to general advice on page 15																			
Round Lake* (Marquette Co.)	Northern Pike	Mercury							◆	◆	◆							◆	◆	◆		
Selkirk Lake* (Allegan Co.)	Yellow Bullhead	Mercury	▲	▲	▼	▼	▼					▲	▲	●	●	●						
St. Joseph River (Below Berrien Springs)	Carp	PCBs	▼	▼	▼	▼	▼	▼	▼	▼	▼	◆	◆	◆	◆	◆	◆	◆	◆	◆		
	Smallmouth Bass	PCBs					▲	▲	▲	▲					●	●	●	●				
	Walleye	PCBs					▲	▲	▲	▲	▲				▼	▼	▼	▼	▼			
St. Joseph River (Including Chapin Lake*, above Berrien Springs, Berrien Co.)	Carp	PCBs	▼	▼	▼	▼	▼	▼	▼	▼	▼	◆	◆	◆	◆	◆	◆	◆	◆	◆		
	Smallmouth Bass	PCBs					▲	▲	▲	▲					●	●	●	●				
St. Joseph River	Walleye	PCBs					▲	▲	▲	▲	▲				▼	▼	▼	▼	▼			
Torch Lake* (Antrim Co.)	Brown Trout	PCBs			▲	▲	▲	▲	▲	▲	▲			▼	▼	▼	●	●	●	●		
	Lake Trout	Mercury, PCBs, Chlordane			▲	▲	▲	▲	▼	◆	◆			▼	▼	●	●	●	◆	◆		
	Lake Whitefish	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▼	▼	▼	▼	▼	●	●	●	●		
	Smallmouth Bass	Mercury, PCBs					▼	▼	▼	▼					●	●	●	●				
Union Lake* (St. Joseph R., Branch Co.)	Carp, Catfish	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▼	▼	▼	▼	▼	▼	▼	▼	▼		
Unnamed Lake* (Baraga Co., T49N, R31W, S35)	Nothern Pike	Mercury							◆	◆	◆							◆	◆	◆		
	Walleye	Mercury					▼	▼	◆	◆	◆				●	●	◆	◆	◆			
	Yellow Perch	Mercury	▲	▼	◆	◆	◆					▲	●	◆	◆	◆						
West Branch Lakes, SE and SW* (Alger Co., T48N, R14W, S31)	Northern Pike	Mercury							◆	◆	◆							◆	◆	◆		
	Walleye	Mercury					▼	▼	◆	◆					●	●	◆	◆				
	Yellow Perch	Mercury	▲	▼	◆	◆	◆					▲	●	◆	◆	◆						
White Lake (Muskegon Co.)	Carp	PCBs, Chlordane	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆		
	Smallmouth Bass	Mercury, PCBs					▼	▼	▼	▼					●	●	●	●				
	Walleye	Mercury, PCBs					▲	▲	▲	▼	▼				▼	●	●	●	●			

\* For species not listed, see general inland lake mercury advisory on page 16.

-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.




			General Population									Women & Children								
			Length (inches)									Length (inches)								
Water body	Species	Contaminant(s)	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +
Lake Michigan Watershed All other locations refer to general advice on page 15																				
*All inland lakes, reservoirs, and impoundments (mercury advisory)	Crappie	Mercury	▲	▼	▼	▼	▼	▼				▲	●	●	●	●	●			
	Largemouth and Smallmouth Bass	Mercury					▼	▼	▼	▼						●	●	●	●	
	Muskellunge	Mercury									▼									●
	Northern Pike	Mercury							▼	▼	▼							●	●	●
	Rock Bass	Mercury	▲	▼	▼	▼	▼					▲	●	●	●	●				
	Walleye	Mercury					▼	▼	▼	▼	▼					●	●	●	●	●
	Yellow Perch	Mercury	▲	▼	▼	▼	▼					▲	●	●	●	●				

-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.

	Unlimited consumption.		One meal per week.
	One meal per month.		Six meals per year.
			Do not eat these fish.

			General Population									Women & Children									
			Length (inches)									Length (inches)									
Water body	Species	Contaminant(s)	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +	
Lake Superior Watershed All other locations refer to general advice on page 15																					
Lake Superior #	Brown Trout	PCBs			▲	▲	▲	▲	▲	▲	▲				▼	▼	▼	▼	▼	▼	▼
	Chinook Salmon	PCBs			▲	▲	▲	▲	▲	▲	▲				▼	▼	▼	▼	●	●	●
	Ciscowet	Mercury, Chlordane PCBs, Dioxin			▲	▲	▲	◆	◆	◆	◆				●	●	●	◆	◆	◆	◆
	Coho Salmon	PCBs			▲	▲	▲	▲	▲	▲	▲				▼	▼	▼	▼	▼	▼	▼
	Lake Herring	PCBs	▲	▲	▲	▲	▲					▼	▼	▼	▼	▼					
	Lake Trout	PCBs, Chlordane			▲	▲	▲	▼	▼	▼	◆				▼	▼	▼	◆	◆	◆	◆
	Longnose Sucker	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
	Whitefish	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	▼	▼	▼	▼
Au Train Lake* (Alger Co.)	Northern Pike	Mercury							▲	▲	▼							▲	▲	●	
Carp River (Downstream of Deer Lake, Marquette Co.)	Brook Trout	Mercury	▲	▲	▲	▲	▲	▲	▲	▲		▲	▲	▲	▲	▲	▲	▲	▲		
	Northern Pike	Mercury							▼	▼	▼							●	●	●	
	All other species	Mercury	◆	◆	◆	◆	◆	◆	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆
Carp Creek (Upstream of Deer Lake, Marquette Co.)	Brook Trout	Mercury	▲	▲	▲	▲	▲	▲	▲	▲		▲	▲	▲	▲	▲	▲	▲	▲		
	All other species	Mercury	◆	◆	◆	◆	◆	◆	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆
Chaney Lake* (Gogebic Co.)	Northern Pike	Mercury							◆	◆	◆							◆	◆	◆	
	Yellow Perch	Mercury	▲	▼	◆	◆	◆					▲	●	◆	◆	◆					
Cisco Lake Chain* (Gogebic Co.)	Walleye						▲	▲	▲	▲	▲					▲	▲	▲	▲	▲	
Deer Lake (Marquette Co.)	All species	Mercury	◆	◆	◆	◆	◆	◆	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆
Duck Lake* (Gogebic Co.)	Walleye	Mercury					▲	▼	▼	▼	▼					▲	●	●	●	●	
Goose Lake* (Marquette Co.)	Northern Pike	PCBs							▲	▲	▲							●	●	●	
	Walleye	PCBs					▲	▲	▲	▲	▲					▼	▼	▼	▼	▼	▼
	Yellow Perch	PCBs	▲	▲	▲	▲	▲					▼	▼	▼	▼	▼					
Lake Independence* (Marquette Co.)	Northern Pike	Mercury							▲	▲	▼							▲	▲	●	
Langford Lake* (Gogebic Co.)	Walleye	Mercury					▲	▲	◆	◆	◆					▲	▲	◆	◆	◆	

\* For species not listed, see general inland lake mercury advisory on page 16  
 # Also applies to tributaries into which migratory species enter

-  Unlimited consumption.
  One meal per week.
-  One meal per month.
  Six meals per year.
-  Do not eat these fish.

			General Population										Women & Children									
			Length (inches)										Length (inches)									
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +											
			6-8	8-10	10-12	12-14	14-18	18-22	22-26	26-30	30 +											
Water body	Species	Contaminant(s)	All other locations refer to general advice on page 15																			
Pomeroy Lake* (Gogebic Co.)	Walleye	Mercury					▲	▼	▼	▼	▼						▲	●	●	●	●	
Portage Lake* (Houghton Co.)	Brown Trout	PCBs			▲	▲	▲	▲	▲	▲	▲				▲	▲	▼	▼	●	●	●	
	Walleye	Mercury, PCBs					▲	▲	▼	▼	▼					▲	▲	●	●	●		
Siskiwit Lake* (Isle Royale)	Lake Trout	PCBs			▲	▲	▲	▲	▲	▲	▲				▼	▼	▼	▼	▼	▼	▼	
	Lake Whitefish	PCBs	▲	▲	▲	▲	▲	▲	▲	▲	▲		▼	▼	▼	▼	▼	▼	▼	▼	▼	
Thousand Island Lake* (Gogebic Co.)	Walleye	Mercury					▲	▼	▼	▼	▼					▲	●	●	●	●		
Torch Lake* (Houghton Co.)	Smallmouth Bass	Mercury, PCBs					▼	▼	▼	▼						●	●	●	●			
	Walleye	Mercury, PCBs					▼	▼	▼	▼	▼					●	●	●	●	●		
*All inland lakes, reservoirs, and impoundments (mercury advisory)	Crappie	Mercury	▲	▼	▼	▼	▼	▼					▲	●	●	●	●	●				
	Largemouth and Smallmouth Bass	Mercury					▼	▼	▼	▼						●	●	●	●			
	Muskellunge	Mercury									▼									●		
	Northern Pike	Mercury							▼	▼	▼						●	●	●			
	Rock Bass	Mercury	▲	▼	▼	▼	▼						▲	●	●	●	●					
	Walleye	Mercury					▼	▼	▼	▼	▼					●	●	●	●	●		
	Yellow Perch	Mercury	▲	▼	▼	▼	▼						▲	●	●	●						

# Also applies to tributaries into which migratory species enter.

\* For species not listed, see general inland lake mercury advisory on page 16.

A. When multiple contaminants are listed, each chemical was analyzed separately for the appropriate advisory and the most protective advisory selected.

Updated January 2001. Advisory updates may be issued at any time upon receipt of significant new findings or changes in advisory criteria. For further information or the most up-to-date advice contact the **Michigan Department of Community Health Environmental Epidemiology Division at 1-800-648-6942.**





*Michigan Department  
of Community Health*



John Engler, Governor

James K. Haveman, Jr., Director

MDCH is an Equal Opportunity Employer, Services and Programs Provider.

1,250,000 printed at 16.6 cents each with a total cost of \$208,335.